

This amendment is in response to the Office Action mailed on July 7, 2003. Applicant respectfully petitions for a one month extension of time for the filing of this response. A check in the amount of \$55.00 is enclosed.

Please amend the above referenced application as follows:

In the Claims:

Please amend claim 51, by rewriting the claim as follows:

--51. (Amended) A method of performing computed assisted diagnosis of a region of interest, comprising:

acquiring imaging scan data including at least a portion of the region of interest;

converting the imaging scan data to a volume representation including a plurality of voxels, at least a portion of the voxels representing a surface of the region of interest; and

analyzing said portion of voxels representing a surface for [at least one of a geometric feature and] a textural feature indicative of an abnormality.--

--52. (Original) The method of performing computed assisted diagnosis according to claim 51, wherein the textural feature is included in a probability density function characterizing a correlation between two voxels of the portion of voxels.--

--53 (Original) The method of performing computed assisted diagnosis according to claim 52, wherein the two voxels are adjacent voxels.--

--54. (Original) The method of performing computer assisted diagnosis according to claim 52, wherein intensities of said portion of voxels are used to generate an estimate of the probability density function.--

--55. (Original) The method of performing computer assisted diagnosis according to claim 54, wherein a plurality of voxel intensities are used to generate a cumulating distribution function of the region of interest and a local cumulating distribution function, and wherein the local cumulating distribution function is compared against the context cumulating distribution function to identify regions of abnormality.--

--56. (Original) The method of performing computer assisted diagnosis according to claim 55, wherein a distance is determined between said local cumulating distribution function and said context cumulating distribution function, the distance providing a measure of abnormality.--

--57. (Original) The method of performing computer assisted diagnosis according to claim 56, wherein the distance is used to assign intensity values to the voxels representing a surface of the region of interest and wherein said method further comprises displaying said voxels such that variations in intensity represent regions of abnormality.--

--58. (Original) The method of performing computer assisted diagnosis according to claim 57, wherein the region of interest includes the colon and wherein the abnormality includes polyps.--

--59. (Original) The method of performing computer assisted diagnosis according to claim 51, wherein the region of interest includes the aorta and wherein the abnormality includes abdominal aortic aneurysms.--

Please cancel claims 60 and 61 without prejudice.

--62. (NEW) A method of performing computed assisted diagnosis of a region of interest, comprising:

acquiring imaging scan data including at least a portion of the region of interest;
converting the imaging scan data to a volume representation including a plurality of voxels, at least a portion of the voxels representing a surface of the region of interest; and
analyzing said portion of voxels representing a surface for a geometric feature and a textural feature indicative of an abnormality.--

--63. (NEW) The method of performing computed assisted diagnosis according to claim 62, wherein the textural feature is included in a probability density function characterizing a correlation between two voxels of the portion of voxels.--

--64 (NEW) The method of performing computed assisted diagnosis according to claim 63, wherein the two voxels are adjacent voxels.--

--65. (NEW) The method of performing computer assisted diagnosis according to claim 61, wherein intensities of said portion of voxels are used to generate an estimate of the probability density function.

--66. (NEW) The method of performing computer assisted diagnosis according to claim 65, wherein a plurality of voxel intensities are used to generate a cumulating distribution function of the region of interest and a local cumulating distribution function, and wherein the local cumulating distribution function is compared against the context cumulating distribution function to identify regions of abnormality.

--67. (NEW) The method of performing computer assisted diagnosis according to claim 66, wherein a distance is determined between said local cumulating distribution function and said context cumulating distribution function, the distance providing a measure of abnormality.

--68. (NEW) The method of performing computer assisted diagnosis according to claim 67, wherein the distance is used to assign intensity values to the voxels representing a surface of the region of interest and wherein said method further comprises displaying said voxels such that variations in intensity represent regions of abnormality.--

--69. (NEW) The method of performing computer assisted diagnosis according to claim 68, wherein the region of interest includes the colon and wherein the abnormality includes polyps.--

--70. (NEW) The method of performing computer assisted diagnosis according to claim 62, wherein the region of interest includes the aorta and wherein the abnormality includes abdominal aortic aneurysms.--

--71. (NEW) The method of performing computer assisted diagnosis according to claim 62, wherein the surface is represented as a second differentiable surface where each surface volume unit has an associate Gauss curvature and wherein said Gauss curvatures combine to form said geometric features.--

--72. (NEW) The method of performing computer assisted diagnosis according to claim 62, wherein a plurality of predetermined geometrical feature templates are defined and wherein the geometric features of said surface are compared to said templates to determine a geometric feature classification.--